

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Michael Messinger (Reg. No. 37,575) on November 20, 2009.

2. The application has been amended as follows:

Claim 1. (Currently Amended) A method in a computer system for flexibly altering software component behavior, the method comprising:

intercepting a service request made by a software component;

evaluating the intercepted service request based on at least one dynamically alterable condition dependent rule, an original or modified data in the service request, and at least one of a present software system state and a past software system state, wherein the at least one dynamically alterable condition dependent rule is alterable while the requesting software component is running;

dynamically selecting at least one desired behavior from among several behaviors for the software component based on the evaluation;~~and~~

dynamically controlling the software component such that the software component executes the selected desired behavior, wherein the selected desired behavior includes executing

alternative code using a copy of requested data in order to virtualize execution of the intercepted service request on the requested data;

_____ altering operation of the intercepted service request based on a result of the virtualized execution of the intercepted service request; and

_____ executing alternative code to directly modify the at least one dynamically alterable condition dependent rule while the requesting software component is running.

Claim 49. (Currently Amended) A computer system for flexibly altering software component behavior, the system comprising:

an interception module, for intercepting a service request made by a software component and altering operation of the intercepted service request based on a result of a virtualized execution of the intercepted service request;

an altered states engine coupled to the interception module, for evaluating the intercepted service request based on at least one dynamically alterable condition dependent rule, an original or modified data in the service request, and at least one of a present software system state and a past software system state, wherein the at least one dynamically alterable condition dependent rule is alterable while the requesting software component is running; and for dynamically selecting at least one desired behavior from among several behaviors for the software component based on the evaluation, wherein the selected desired behavior includes executing alternative code using a copy of requested data in order to virtualize execution of the intercepted service request on the requested data;

at least one rules database, for storing at least one dynamically alterable condition dependent rule, the rules database being coupled to the altered states engine; ~~and~~

alternative code for executing in response to an intercepted service request made by the software component, wherein the alternative code is used for dynamically controlling the software component such that the software component executes the selected desired behavior, the alternative code being coupled to the altered states engine; and

alternative code for directly modifying the at least one dynamically alterable condition dependent rule while the requesting software component is running, the alternative code for directly modifying being coupled to the altered states engine.

Claim 50. (Currently Amended) A computer system for flexibly altering software component behavior, the system including a processor and memory, comprising:

a software portion for intercepting a service request made by a software component;

a software portion for evaluating the intercepted service request based on at least one dynamically alterable condition dependent rule, an original or modified data in the service request, and at least one of a present software system state and a past software system state, wherein the at least one dynamically alterable condition dependent rule is alterable while the requesting software component is running;

a software portion for dynamically selecting at least one desired behavior from among several behaviors for the software component based on the evaluation; ~~and~~

a software portion for dynamically controlling the software component such that the software component executes the selected desired behavior, wherein the selected described

behavior includes executing alternative code using a copy of requested data in order to virtualize execution of the intercepted service request on the requested data;

_____ a software portion for altering operation of the intercepted service request based on a result of the virtualized execution of the intercepted service request; and

_____ a software portion for executing alternative code to directly modify the at least one dynamically alterable condition dependent rule while the requesting software component is running, wherein each software portion can be stored in the memory and executed by the processor.

Claim 52. (Currently Amended) A computer readable medium containing instructions for controlling a processor to perform steps in a method for flexibly altering software component behavior, the steps comprising:

intercepting a service request made by a software component;
evaluating the intercepted service request based on at least one dynamically alterable condition dependent rule, an original or modified data in the service request, and at least one of a present software system state and a past software system, wherein the at least one dynamically alterable condition dependent rule is alterable while the requesting software component is running;

dynamically selecting at least one desired behavior from among several behaviors for the software component based on the evaluation;~~and~~

dynamically controlling the software component such that the software component executes the selected desired behavior, wherein the selected desired behavior includes executing

alternative code using a copy of requested data in order to virtualize execution of the intercepted service request on the requested data;

_____ altering operation of the intercepted service request based on a result of the virtualized execution of the intercepted service request; and

_____ executing alternative code to directly modify the at least one dynamically alterable condition dependent rule while the requesting software component is running.

Claim 64. (Currently Amended) A computer-implemented method in a computer system for flexibly altering software component behavior, the computer-implemented method comprising:

receiving, by an altered states engine, a service request made by a software component;
evaluating the ~~intercepted-received~~ service request based on at least one dynamically alterable condition dependent rule, an original or modified data in the service request, and at least one of a present software system state and a past software system state, wherein the at least one dynamically alterable condition dependent rule is alterable while the requesting software component is running;

dynamically selecting at least one desired behavior from among several behaviors for the software component based on the evaluation; ~~and~~

dynamically controlling the software component such that the software component executes the selected desired behavior, wherein the selected desired behavior includes executing alternative code using a copy of requested data in order to virtualize execution of the received service request on the requested data;

altering operation of the received service request based on a result of the virtualized execution of the received service request; and
executing alternative code to directly modify the at least one dynamically alterable condition dependent rule while the requesting software component is running.

Claim 67. (Currently Amended) The method of claim 65 wherein:
the alternative code executed in response to receiving the service request performs an operation with a same purpose as that of the service request.

Claim 68. (Currently Amended) The method of claim 65 wherein:
the alternative code executed in response to receiving the service request performs an operation with a different purpose from that of the service request.

Claim 101. (Currently Amended) A computer system for flexibly altering software component behavior, the computer system comprising:

a receiving module, for receiving a service request made by a software component;
an altered states engine coupled to the receiving module and controlled by a processor,
for:

evaluating the ~~interepted-received~~ service request based on at least one dynamically alterable condition dependent rule, an original or modified data in the service request, and at least one of a present software system state and a past software system state, wherein the at least

one dynamically alterable condition dependent rule is alterable while the requesting software component is running; and

dynamically selecting a desired behavior from among several behaviors for the software component based on the evaluation;

_____ a returning module, for altering operation of the received service request based on a result of a virtualized execution of the received service request;

at least one rules database, for storing at least one dynamically alterable condition dependent rule, the rules database being coupled to the altered states engine; ~~and~~

alternative code for executing in response to a received service request made by the software component, wherein the alternative code is used for dynamically controlling the software component such that the software component executes the selected desired behavior, wherein the selected desired behavior includes executing alternative code using a copy of requested data in order to virtualize execution of the received service request on the requested data, the alternative code for executing in response to a received service request being coupled to the altered states engine; and

_____ alternative code for directly modifying the at least one dynamically alterable condition dependent rule while the requesting software component is running, the alternative code for directly modifying being coupled to the altered states engine.

Claim 102. (Currently Amended) A computer system for flexibly altering software component behavior, the system including a processor and memory, comprising:

a software portion controlled by the processor for receiving a service request made by a software component;

a software portion controlled by the processor for evaluating the ~~interepcted-received~~ service request based on at least one dynamically alterable condition dependent rule, an original or modified data in the service request, and at least one of a present software system state and a past software system state, wherein the at least one dynamically alterable condition dependent rule is alterable while the requesting software component is running;

a software portion controlled by the processor for dynamically selecting a desired behavior from among several behaviors for the software component based on the evaluation; ~~and~~

a software portion controlled by the processor for dynamically controlling the software component such that the software component executes the selected desired behavior, wherein the selected desired behavior includes executing alternative code using a copy of requested data in order to virtualize execution of the received service request on the requested data;

a software portion controlled by the processor for altering operation of the received service request based on a result of the virtualized execution of the received service request; and

a software portion controlled by the processor for executing alternative code to directly modify the at least one dynamically alterable condition dependent rule while the requesting software component is running, wherein each software portion can be stored in the memory and executed by the processor.

Claim 104. (Currently Amended) A computer readable medium containing instructions for controlling a processor to perform steps in a method for flexibly altering software component behavior, the steps comprising:

receiving a service request made by a software component;

evaluating the ~~intercepted-received~~ service request based on at least one dynamically alterable condition dependent rule, an original or modified data in the service request, and at least one of a present software system state and a past software system state, wherein the at least one dynamically alterable condition dependent rule is alterable while the requesting software component is running;

dynamically selecting a desired behavior from among several behaviors for the software component based on the evaluation;~~and~~

dynamically controlling the software component such that the software component executes the selected desired behavior; wherein the selected desired behavior includes executing alternative code using a copy of requested data in order to virtualize execution of the received service request on the requested data;

altering operation of the received service request based on a result of the virtualized execution of the received service request; and

executing alternative code to directly modify the at least one dynamically alterable condition dependent rule while the requesting software component is running.

Claim 116. (Currently Amended) A method in a computer system for flexibly altering software component behavior, the method comprising:

intercepting a service request made by a software component;

evaluating the intercepted service request based on at least one dynamically alterable condition dependent rule, data in the service request, and a software system state, wherein the at least one dynamically alterable condition dependent rule is alterable while the requesting software component is running;

dynamically selecting at least one desired behavior from among several behaviors for the software component based on the evaluation;

dynamically controlling the software component such that the software component executes the selected desired behavior, wherein the selected desired behavior includes executing alternative code using a copy of requested data in order to virtualize execution of the intercepted service request on the requested data;~~and~~

altering operation of the intercepted service request based on a result of the virtualized execution of the intercepted service request; and

executing alternative code to directly modify the at least one dynamically alterable condition dependent rule while the requesting software component is running.

Claim 117. (Canceled)

Claim 118. (Previously Presented) The method of claim 447 116, wherein the at least one dynamically alterable condition dependent rule is modified based on a result of the virtualized execution.

3. The drawings filed 2/22/2002 are accepted by examiner.

4. The following is an examiner's statement of reasons for allowance:

As to claims 1-41, 44-47, 49, 50, 52-62, 64-93, 96-99, 101, 102, 104-114, 116, and 118-120, the prior art of record does not teach or render obvious the limitations recited in claims 1, 49, 50, 52, 64, 101, 102, 104 and 116, when taken in the context of the claims as a whole, specific to the selected desired behavior includes executing alternative code using a copy of requested data in order to virtualize execution of the intercepted service request on the requested data, altering operation of the intercepted service request based on a result of the virtualized execution of the intercepted service request, and executing alternative code to directly modify the at least one dynamically alterable condition dependent rule while the requesting software component is running.

Moreover, evidence for modifying the prior art teachings by one of ordinary 1, 49, 50, 52, 64, 101, 102, 104 and 116, 41 and 49.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIEM K. CAO whose telephone number is (571)272-3760. The examiner can normally be reached on Monday - Friday, 7:30AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sough can be reached on (571) 272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DIEM K CAO/
Primary Examiner
Art Unit 2194

DC
November 21, 2009